SIGNIFICANT PERMIT REVISION DESCRIPTION

This Class I Significant Revision to Operating Permit # 53336 is issued to Drake Cement LLC, for the authorization to add a concrete batch plant to the facility. Additionally, this revision will change the requirement to maintain the pressure drop across the dust collectors from +/- 20 percent of the most recent performance test to a range of 0.5 to 6.0 inches of water for the Coal Mill baghouse (BH-12.18), quarry dust collectors (C-1.6, DC-1.8, DC-1.10, and DC-1.11), and the coal transport dust collector (DC-12.7.1). This revision also allows the facility the ability to conduct daily visible emissions monitoring in lieu of a bag leak detection system (BLDS) for the finish mill dust collectors DC-13.19, DC-13.20, and DC-13.40. This allowance is authorized under 40 CFR 63 Subpart LLL but was not incorporated in the previous permit renewal.

The addition of the concrete batch plant will result in an increase of uncontrolled emissions greater than the significance level. As a result, a significant revision to the permit is required. The proposed changes satisfy all requirements for a significant permit revision under Arizona Administrative Code, Title 18, Chapter 2, Section 320 (A.A.C. R18-2-320.A.)

ATTACHMENT "B"

SPECIFIC CONDITIONS

Addenda (Significant Revision #58734) to Operating Permit # 53336

For

Drake Cement LLC

Condition I.D.9.d of Attachment "B" has been revised as follows:

I. KILN, CLINKER COOLER, RAW MILL, AND COAL MILL

D. Monitoring, Recordkeeping, and Reporting Requirements

9. Monitoring and Recordkeeping for the Coal Mill and Baghouse BH-12.18:

d. If the pressure drop across Baghouse BH-12.18 is outside the range of 0.5 to 6.0 inches of H2O, the Permittee shall initiate investigation of the control equipment within 24 hours of the occurrence, to identify any need for corrective action. If corrective action is required, the Permittee shall implement such corrective action as soon as practicable in order to avert or minimize possible exceedances of the emission standards in Conditions and I.B.3.b. If the pressure drop remains outside of the range for 72 consecutive hours after the first occurrence, the Permittee shall submit a compliance schedule to the Director in accordance with Condition XII.D of Attachment "A."

[A.A.C. R18-2-406(A)(4)]

Condition II.D.3 of Attachment "B" has been revised as follows:

II. FINISH MILLS, STORAGE BINS, BULK LOADING AND UNLOADING SYSTEMS, AND CONVEYING SYSTEM TRANSFER POINTS SUBJECT TO 40 CFR 63 SUBPART LLL

D. Monitoring, Recordkeeping, and Reporting Requirements

3. Monitoring and Recordkeeping for Finish Mill Dust Collectors

a. The Permittee shall monitor opacity by conducting daily visual emissions observations for Dust Collectors DC-13.19, DC-13.20, and DC-13.40 in accordance with the procedures of Method 22 of appendix A–7 of 40 CFR Part 60**.** The duration of the Method 22 performance test shall be 6 minutes. If visible emissions are observed during daily visible emissions observations, the Permittee shall follow the applicable procedures in Condition II.D.3.a.i through II.D.3.a.ii as follows.

[40 CFR § 63.1350(f)(2)(i)]

i. Within 24 hours of the end of the Method 22 performance test in which visible emissions were observed, the owner or operator shall conduct a follow up Method 22 performance test of each stack from which visible emissions were observed during the previous Method 22 performance test conducted in accordance with Condition II.D.3.a.

[40 CFR § 63.1350(f)(2)(ii)]

ii. If visible emissions are observed during the follow-up Method 22 performance test required by Condition II.D.3.a.i from any stack from which visible emissions were observed during the previous Method 22 performance test required by Condition II.D.3.a. The Permittee shall conduct a visual opacity test of each stack from which emissions were observed during the follow up Method 22 performance test in accordance with Method 9 of appendix A–4 to 40 CFR Part 60. The duration of the Method 9 test shall be 30 minutes.

[40 CFR § 63.1350(f)(2)(iii)]

b. If visible emissions are observed during any Method 22 visible emissions test conducted under Condition II.D.3.a, the Permittee shall initiate, within one-hour, the corrective actions specified in the site operation and maintenance plan as required in 40 CFR 63.1347.

[40 CFR § 63.1350(f)(3)]

c. *The Permittee may choose to install a BLDS in lieu of conducting the daily visible emissions testing required under Condition II.D.3.a. of this section. If a BLDS is elected in lieu of daily visible emissions observations the Permittee shall calibrate*, maintain, *and operate Bag Leak Detection Systems for detecting leaks in Dust Collectors DC-13.19, DC-13.20, and DC-13.40*.

[A.A.C. R18-2-331(A)(3)(c), R18-2-1101(B)(50), 40 CFR § 63.1350(m), 40 CFR § 63.1350(f)(4)(ii), 40 CFR § 63.1350(m)(10)]
[Material Permit Conditions are indicated with underline and italics]

d. If a BLDS is used, the Permittee shall develop and submit to the

Department an opacity emissions monitoring plan in accordance with the requirements in 40 CFR 63.1350(p)(5).

[40 CFR 63.1350(p)(5) and 1350(f)]

e. Each Bag Leak Detection System required by Condition II.D.3.c shall meet the requirements of Conditions II.D.3.e.i through II.D.3.e.xiii.

[A.A.C. R18-2-331(A)(3)(c), A.A.C.R18-2-1101(B)(50), 40 CFR § 63.1350(m), and 40 CFR § 63.1350(f)(4)(ii)]

i. The BLDS shall complete a minimum of one cycle of operation for each successive 15-minute period. The Permittee shall have a minimum of four successive cycles of operation to have a valid hour of data.

ii. The Permittee shall conduct all monitoring in continuous operation at all times that the unit is operating.

iii. The Permittee shall determine the 3-hour block average of all recorded readings.

iv. The Permittee shall record the results of each inspection, calibration, and validation check.

v. The Permittee shall install and operate a bag leak detection system for each exhaust stack of the fabric filter.

vi. Each bag leak detection system shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA–454/R–98–015, September 1997.

vii. The bag leak detection system shall be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 or fewer milligrams per actual cubic meter.

viii. The bag leak detection system sensor shall provide output of relative or absolute particulate matter loadings.

ix. The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor.

x. The bag leak detection system shall be equipped with an alarm system that will alert an operator automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm shall be located such that the alert is detected and recognized easily by an operator.

xi. For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system shall be installed in each baghouse compartment or cell.

xii. Where multiple bag leak detectors are required, the system's

instrumentation and alarm may be shared among detectors.

xiii. For each BLDS, the Permittee shall initiate procedures to determine the cause of every alarm within 8 hours of the alarm. The Permittee shall alleviate the cause of the alarm within 24 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

(a) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;

(b) Sealing off defective bags or filter media;

(c) Replacing defective bags or filter media or otherwise repairing the control device;

(d) Sealing off a defective fabric filter compartment;

(e) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or

(f) Shutting down the process producing the PM emissions.

f. The Permittee shall report excess emissions and deviations in accordance with Sections XII.A and XII.B, respectively, in Attachment "A" of this permit.

[A.A.C. R18-2-306(A)(5)(b)]

Condition III.D.2.c of Attachment "B" has been revised as follows:

III. LIMESTONE PROCESSING PLANT

D. Monitoring, Recordkeeping, and Reporting Requirements

2. Monitoring and Recordkeeping for Dust Collectors:

c. If the pressure drop across any dust collector is outside the range of 0.5 to 6.0 inches of H2O, the Permittee shall initiate investigation of the dust collector within 24 hours of the occurrence, to identify any need for corrective action. If corrective action is required, the Permittee shall implement such corrective action as soon as practicable in order to avert or minimize possible exceedances of the emission standards in Conditions III.B.2.a, II.B.2.c and III.B.2.g. If the pressure drop remains outside of the range for 72 consecutive hours after the first occurrence, the Permittee shall submit a compliance schedule to the Director in accordance with Condition XII.D of Attachment "A."

[A.A.C. R18-2-406(A)(4)]

Condition IV.D.2.c of Attachment "B" has been revised as follows:

IV. OTHER MATERIAL HANDLING ACTIVITIES

D. Monitoring, Recordkeeping, and Reporting Requirements

2. Monitoring and Recordkeeping for Particulate Matter Emission Standards

c. If the pressure drop across Dust Collector DC-12.7.1 is outside the range of 0.5 to 6.0 inches of H2O, the Permittee shall initiate investigation of the dust collector within 24 hours of the occurrence, to identify any need for corrective action. If corrective action is required, the Permittee shall implement such corrective action as soon as practicable in order to avert or minimize possible exceedances of the emission standards in Conditions IV.B.2.a and IV.B.2.b. If the pressure drop remains outside of the range for 72 consecutive hours after the first occurrence, the Permittee shall submit a compliance schedule to the Director in accordance with Condition XII.D of Attachment "A."

[A.A.C. R18-2-406(A)(4)]

Condition IX of Attachment "B" has been added as follows:

IX. CONCRETE BATCH PLANT

A. List of Emission Units

Emission Unit Name (Equipment ID Number)	Emission Unit Description	Control Measure (Control Device ID Number)	Emission Point ID Number
Concrete Batch Plant (CBP-1.1)	140 Cubic Yards per Hour	Baghouse (BH-CBP-1.1)	BH-CBP-1.1
Cement Silo (CS-1.1)	Delivery of Cement to Silo, 550 bbl, 13 TPH	Baghouse (BH-CBP-1.1)	BH-CBP-1.1
Fly Ash Silo (FAS-1.1)	Delivery of Flyash or Cement Supplement to Silo, 450 bbl, 2 TPH	Baghouse (BH-CBP-1.1) or Dedicated Dust Collector (TBD)	Baghouse (BH-CBP-1.1) or Dedicated Dust Collector (TBD)
Aggregate Delivery to Ground Storage	Delivery of Aggregate to Storage Pile	Water Application	AD-1
Sand Delivery to Ground Storage	Delivery of Sand to Storage Pile	Water Application	SD-1
Aggregate Transfer to Conveyor	Aggregate Transfer to Conveyor	Water Application	ATP-1
Sand Transfer to Conveyor	Sand Transfer to Conveyor	Water Application	STP-1
Aggregate Transfer to Elevated Storage	Aggregate Transfer to Elevated Storage	Water Application	ATP-2
Sand Transfer to Elevated Storage	Sand Transfer to Elevated Storage	Water Application	STP-2
Weigh Hopper Loading	Loading of Aggregate and Sand to Weigh Hopper	Water Application	WH-1

Truck Mix Loading	Loading Finish Product in Ready Mix Trucks	Baghouse (BH-CBP-1.1)	BH-CBP-1.1
Unpaved Roads	N/A	Water Application	N/A
Storage Piles	Aggregate, Sand, and Pozzolan Piles	Water Application	N/A

B. Operating Limitations

1. The Permittee shall only operate the concrete batch plant using commercial electric power.

[A.A.C. R18-2-306.A.2]

2. *The Permittee shall not operate the concrete batch plant such that the throughput exceeds 1,310 cubic yards per day*.

[A.A.C. R18-2-306.01 and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

C. Particulate Matter and Opacity

1. Emission Limits/Standards

a. The Permittee shall not cause to be discharged into the atmosphere from any concrete batch plant processes, any plume or effluent which exhibits greater than 20 percent opacity.

[A.A.C. R18-2-702.B]

b. Fugitive dust emissions from the concrete batch plant shall be controlled in accordance with Condition VII of this attachment.

[A.A.C. R18-2-723]

2. Air Pollution Controls

a. *The Permittee shall install, operate* and maintain *the following air pollution controls on the following emission sources*:

i. Cement / Fly Ash Silos / Product Delivery System

(a) *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable,* maintain, and *operate baghouse (BH-CBP-1.1) in a manner consistent with good air pollution control practice.*

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

(b) *Loading of cement / fly ash storage silos shall be conducted in such a manner that the displaced air does not by-pass the baghouse and is not direct-vented to the atmosphere*.

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

(c) Baghouses shall be maintained in accordance with the following:

(1) Prior to start-up, visual inspections shall be conducted on all venting ducts or lines, fittings (including dust shroud), and the blower;

(2) Following shut-down, all pressurized systems shall be turned "off";

(3) All pressure and temperature gauges, flow meters, and other related instruments shall be checked daily to ensure proper functioning; any detected problems shall be corrected as soon as possible;

(4) All ducts, hoods, framework, and housings shall be checked daily for signs of wear;

(5) The fan motor, bearings, shaking device, reverse-jet blow rings, valves, and dampers shall be lubricated regularly and checked for wear; and

(6) The Permittee shall maintain records which demonstrate compliance with the activities listed in Conditions IX.C.2.a.i(c)(1) through IX.C.2.a.i(c)(5) above.

ii. Wet Suppression Requirements for Applicable Emissions Units in Condition IX.A

[A.A.C. R18-2-306.A.2 and -306.A.3.c]

(a) Prior to start-up, the water supply shall be checked, all nozzles shall be inspected, and all associated valves shall be opened;

(b) Following shut-down, all nozzles shall be inspected and all associated valves shall be closed;

(c) The spray system shall be checked daily for performance; and

(d) All nozzles and valves shall be cleaned or replaced as needed.

iii. Water trucks, or the equivalent, shall be operated and maintained in accordance with the following:

[A.A.C. R18-2-306.A.2 and -306.A.3.c]

(a) Prior to start-up, the water supply shall be checked, all nozzles shall be inspected, and all associated valves shall be opened;

(b) Following shut-down, all nozzles shall be inspected and

all associated valves shall be closed;

(c) Safety and equipment checks shall be conducted daily; and

(d) Normal vehicle maintenance shall be performed on a regular or "as needed" basis.

iv. The Permittee shall maintain records which demonstrate compliance with the activities listed in Conditions IX.C.2.a.iii and IX.C.2.a.iv above

b. Haul Roads and Storage Piles

Water, or an equivalent control, shall be used to control visible emissions from haul roads and storage piles.

[A.A.C. R18-2-306.A.2 and -331.A.3.d]
[Material permit conditions are indicated by underline and italics]

D. Monitoring, Recordkeeping and Reporting Requirements

1. The Permittee shall maintain daily records of the throughput of concrete produced by the batch plant listed in Condition XI.A.

[A.A.C. R18-2-306.A.3.c]

2. Opacity

[A.A.C. R18-2-306.A.3.c]

a. A certified Method 9 observer shall conduct a monthly visual survey of visible emissions from the process sources or fugitive dust sources as per the following procedure:

i. If the observer, during the visual survey, does not see visible emissions that on an instantaneous basis appears to exceed the applicable opacity standard, then the observer shall keep a record of the name of the observer, the date on which the observation was made, and the results of the survey.

ii. If the observer sees a visible emission from the process source that on an instantaneous basis appears to exceed the applicable opacity standard, then the observer shall, if practicable, take a six-minute Method 9 observation of the visible emission. If the six-minute opacity of the visible emission is less than or equal to the applicable opacity standard, the observer shall make a record of the date and time of the observation, name of the observer, and the results of the Method 9 observation.

iii. If the six-minute opacity of the visible emission exceeds the applicable opacity standard, then the Permittee shall adjust or repair the controls or equipment to reduce opacity to below the applicable standard. The Permittee shall keep record of the date and time of the observation, name of the observer, the results of the Method 9 observation, and records of any corrective action taken. The Permittee shall report this as an excess emission

under Condition XI.A of Attachment "A".A certified Method 9 observer shall conduct a monthly survey of visible emissions from all process equipment and fugitive dust sources. The Permittee shall keep a record of the name of the observer, the date and location on which the observation was made, and the results of the observation.

3. The Permittee shall maintain logs of all maintenance activities performed on the baghouse. These logs shall include the type of maintenance activity being performed and the duration of each maintenance activity, including the date, starting time, and ending time of the maintenance activities. These logs shall be maintained on-site and shall be readily available to the Department upon request.

[A.A.C. R18-2-306.A.3.c]

4. For each baghouse equipped with a pressure drop measuring device, the Permittee shall monitor and record twice per shift the pressure drop (in inches of H2O) across the baghouse. The records shall include the dates and times each reading was taken.

[A.A.C. R18-2-306.A.3.c and -331.A.3.b]

E. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-614, -702.B, -723.

ATTACHMENT "C"

EQUIPMENT LIST

Addenda (Significant Revision #58734) to Operating Permit # 53336

For

Drake Cement LLC

The equipment list has been revised to include the following:

Equipment ID	Equipment Description	Capacity	Make	Model Number	Serial Number	Date of Manufacture
Department 15 – Concrete Batch Plant						
CBP-1.1	Concrete Batch Plant	140 Cubic Yards/Hr	Vince Hagen	THE10250B	CBP 840404	06/16/1984
CS-1.1	Cement Silo	550 bbl	Vince Hagen	THE10250B	CS 840404	06/16/1984
FAS-1.1	Fly Ash Silo	450 bbl	Vince Hagen	THE10250B	FC 840404	06/16/1984
BH-CBP-1.1	Baghouse for Batch Plant	N/A	MFG Sales Company Inc.	RA140-SAT	FC 840404	N/A
DC-CBP-1.1	Dust Collector for Flyash Silo	530 CFM	TBS	TBD	TBD	N/A